



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City Food Mart
FID# 22419, Incident# 201311511
Leaking Underground Storage Tank Program

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100 N. Senate Ave., Indianapolis, IN 46204

Background:

On November 7, 2013, the Indiana Department of Environmental Management (IDEM) received a release report from an underground storage tank (UST), located at 301 North Lafayette Boulevard, South Bend, Indiana. Reportedly, a gasoline odor was detected in the adjacent Carpenter's Union Hall building located immediately north of the site in October 2013. Subsequently, the owner conducted a tank tightness test. The two USTs were determined to be tight. However, testing did detect an anomaly in the double-walled flex, product piping. IDEM and county health department personnel met with the consultant and the owner to discuss the gasoline vapor issue and emergency response actions on November 8, 2013.

Sand extends from the near surface to a depth of at least 25 feet. The depth to ground water is approximately 20 feet. The site and surrounding area is serviced by municipal water. The site is located in a Wellhead Protection Area. To date, approximately 7,100 gallons of light non-aqueous phase liquid (LNAPL) and water have been recovered.

Actions Taken:

Immediate abatement measures included the installation of one soil vapor extraction (SVE) well immediately south of the Carpenter's Union Hall building and adjacent to the UST basin at the site and three monitoring wells (MW-1, MW-2 and MW-3) on November 12, 2013. The SVE well was fitted with a ventilator at the wellhead. Free product accumulated in all three monitoring wells at a depth of approximately 12 inches. Manual product abatement was conducted two times within the first week of the well installation. By the second week of the response and through December, the conducted numerous Enhanced fluid recovery (EFR) events to recovery product. A combination of manual bailing and product only extraction utilizing a peristaltic pump continues at the site until a dual-phase extraction (DPE) system design is installed.

Indoor air samples were collected from the Carpenter's Union Hall on November 13 and 14, 2013. Venting was not being performed during the original indoor air sampling event. Analytical results indicated that gasoline constituents were present in the indoor air above samples above IDEM Remediation Closure Guide commercial screening levels. After approximately three weeks of SVE/blower operation, indoor air samples were again collected from the Carpenter's Union Hall building. Testing results indicated that the only gasoline constituent present was benzene at $5.14 \mu\text{g}/\text{m}^3$, which slightly exceeds IDEM's Remediation Closure Guide (RCG) residential screening level. Recent testing on January 30, 2014, indicated that all constituents are at or below IDEM RCG residential screening levels.

Upon completion of the initial abatement measures, an Initial Site Characterization (ISC) was conducted to determine the nature and extent of contamination. The ISC results indicate the contamination is not fully delineated and extends off-site.

Environmental Impacts:

The contamination is characterized as a high priority due to the presence of LNAPL and the vapors in the adjacent building. Initial indoor air analytical results in the building detected benzene ($318 \mu\text{g}/\text{m}^3$), 1,2-

Dichloroethane (6.72 µg/m³) and N-Hexane (3,700 µg/m³) above IDEM's Remediation Closure Guide (RCG) commercial screening levels. Benzene concentrations represented the most health concern because it exceeded the Indoor Air Action Level for sub chronic exposure level of 160 µg/m³.

Next Steps:

A further site investigation (FSI) is currently being conducted at the site to finish characterizing the extent of contamination and to finish evaluation of potential exposure pathways. Free product abatement will continue at the site until an approved DPE system is designed, approved, installed and started. IDEM staff are currently reviewing an Interim Corrective Action Plan – Dual Phase Extraction Design Report. In addition, monthly indoor air samples will continue to be monitored at the Carpenter's Union Hall Building until vapors are mitigated.



More Information:

Environmental Issues - Sampling, Gasoline Spills, and Cleanup

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IDEM Virtual File Cabinet - To view public records for this site, visit IDEM's Virtual File Cabinet at www.idem.IN.gov/6551.htm, click on Document Search, enter the index as "FID", and enter the Value "22419".

IDEM UST Branch Information - For general information and links to additional resources, visit IDEM's Underground Storage Tanks Web page at www.idem.IN.gov/4999.htm and IDEM's Leaking Underground Storage Tanks Web page at www.idem.IN.gov/4997.htm.